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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,684	01/17/2006	Daryl Richard Henry Stroud	SMAR003	4614
21322	7590	06/20/2007		
MARK A OATHOUT 3701 KIRBY DRIVE, SUITE 960 HOUSTON, TX 77098			EXAMINER STEPHENSON, DANIEL P	
			ART UNIT 3672	PAPER NUMBER
			MAIL DATE 06/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/536,684	Applicant(s) STROUD ET AL.	
	Examiner Daniel P. Stephenson	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/8/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the clutch mechanism must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Amaudric du Chaffaut (US 4,989,679). Amaudric du Chaffaut (Fig 10, col. 1 lines 11-23, col. 4 lines 1-11, col. 6 line 52-col. 7 line 3) discloses a stabilizer. The stabilizer has an inner part adapted to rotate with the drill string and an outer part adapted to engage the borehole wall, the outer part being rotatable relative to the inner part so that the outer part can remain substantially stationary as the remainder of the stabilizer rotates with the drill string. The stabilizer includes a clutch (discs between 25a and 25b) mechanism connected to the inner part and the outer part. The clutch mechanism can vary the resistance to rotation of the outer part relative to the inner part between a minimum resistance whereupon the outer part can rotate substantially freely relative to the inner part, and a maximum resistance in which the outer part is caused to rotate with the inner part. The variation in resistance between the minimum resistance and the maximum resistance is substantially continuous. The clutch mechanism comprises two annular members with corresponding tapered drive surfaces, and means to move the drive surfaces into and out of engagement. The inner part and the outer part are connected together by bearings (72), including a reservoir of oil surrounding the bearings. The reservoir of oil is bordered by at least one movable piston (14), which can act to vary the volume of the reservoir in response to changes in pressure and temperature within the oil. The piston is mounted to the outer part so as to be rotatable relative to the inner part.

4. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Webb et al. (US 4,606,417). Webb et al. (Fig. 1) discloses a stabilizer. The stabilizer has an inner part adapted to rotate with the drill string and an outer part adapted to engage the borehole wall, the outer part

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being rotatable relative to the inner part so that the outer part can remain substantially stationary as the remainder of the stabilizer rotates with the drill string. The stabilizer includes a clutch (40) mechanism connected to the inner part and the outer part. The clutch mechanism has two annular members with corresponding tapered surfaces. The inner part and the outer part are connected together by bearings (47), including a reservoir of oil surrounding the bearings. The reservoir of oil is bordered by at least one movable piston (75), which can act to vary the volume of the reservoir in response to changes in pressure and temperature within the oil. The piston is mounted to the outer part so as to be rotatable relative to the inner part.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amaudric du Chaffaut in view of Webster (US 5,603,386) or the European document to Allen et al. (EP 0209318 A2). Amaudric du Chaffaut shows all the limitations of the claimed invention, except, it does not disclose that the stabilizer is part of a drilling apparatus where there is a directional drilling stabilizer located above the stabilizer, and the stabilizer is located above the drill bit, wherein the stabilizer would act as a fulcrum with a ratio of 1 to 2 between the fulcrum and the steering point. Both Webster (Fig. 1A and 1B) and EP '318 (Fig. 1) disclose drilling apparatus wherein there is a stabilizer located between a steering assembly and a drill bit. Each of them would provide a ratio between 1 and 2 for the fulcrum to the steering point. It would

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have been obvious to one of ordinary skill in the art at the time the invention was made to place the stabilizer of Amaudric du Chaffaut on the assemblies of Webster or EP '318. This would be done to reduce friction on the borehole as taught by Amaudric du Chaffaut.

With regards to claim 12, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add another piston at the lower end of the stabilizer, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

7. Claims 1, 2, 5-8, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Webb et al. in view of Webster (US 5,603,386) or the European document to Allen et al. (EP 0209318 A2). Webb et al. shows all the limitations of the claimed invention, except, it does not disclose that the stabilizer is part of a drilling apparatus where there is a directional drilling stabilizer located above the stabilizer, and the stabilizer is located above the drill bit, wherein the stabilizer would act as a fulcrum with a ratio of 1 to 2 between the fulcrum and the steering point. Both Webster (Fig. 1A and 1B) and EP '318 (Fig. 1) disclose drilling apparatus wherein there is a stabilizer located between a steering assembly and a drill bit. Each of them would provide a ratio between 1 and 2 for the fulcrum to the steering point. It would have been obvious to one of ordinary skill in the art at the time the invention was made to place the stabilizer of Webb et al. on the assemblies of Webster or EP '318. This would be done to reduce friction on the borehole.

With regards to claim 12, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add another piston at the lower end of the stabilizer, since it

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has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Allowable Subject Matter

8. Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

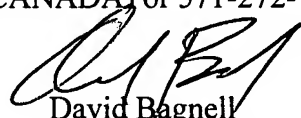
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Boulet et al., Thomas and Bachman et al. all show similar features to those of the present invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel P. Stephenson whose telephone number is (571) 272-7035. The examiner can normally be reached on 8:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



David Bagnell
Supervisory Patent Examiner
Art Unit 3672

DPS 